TOYOTA

TOYOTA MOTOR NORTH AMERICA, INC.

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November 25, 2009

Ms. Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Supplement Reply Comments of the Toyota Motor Corporation (RM-11555)

Dear Ms. Dortch:

Enclosed herewith for filing, on behalf of Toyota Motor Corporation (TMC), are an original and nine (9) copies of our "SUPPLEMENTAL REPLY COMMENTS" regarding the above-referenced proceeding.

If you have any inquiries or correspondence concerning this matter, please feel free to contact me at 202-463-6824, or my staff, Ms. Megumi Suzuki, at 202-463-6821.

Sincerely,

Chris Tinto
Vice President, Technical and Regulatory Affairs
Toyota Motor North America, Inc.

Enclosures

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
	)	
Amendment of Section 15.253 of the Commission's Rules Regarding Operation within the Band 76.0-77.0 GHz (vehicle radar systems)	)	RM-11555

SUPPLEMENTAL REPLY COMMENTS OF THE

TOYOTA MOTOR CORPORATION

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601 Thirteenth Street, NW
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Christopher J. Tinto
Vice President
Technical & Regulatory Affairs
Safety

Submitted: November 25, 2009

Before the
Federal Communications Commission
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In the Matter of	)	
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within the Band 76.0-77.0 GHz (vehicle radar	)	
systems)	)	

SUPPLEMENTAL REPLY COMMENTS OF THE

TOYOTA MOTOR CORPORATION

Pursuant to Section 1.405 of the Federal Communications Commission's (FCC's) Rules,[1] Toyota Motor North America, Inc. (TMA), on behalf of Toyota Motor Corporation (TMC) hereby submits supplemental information to comments previously filed in the above-captioned proceeding by TMC.[2] The tables and figures in the attached Appendix are designed to provide technical information to the Commission regarding typical vehicular radar systems proposed by TMC. We believe this information will help address issues and concerns raised to date in the comments filed in this proceeding. We hope the Commission will find this additional information useful. Should you have any questions or comments, please contact TMA.

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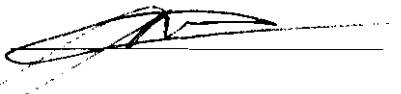
[1] 47 C.F.R. §1.405.

[2] See "Consumer & Governmental Affairs Bureau Reference Information Center Petition For Rulemakings Filed," Public Notice, Report No. 2896, RM-11555 (August 26, 2009).

Respectfully submitted,



Christopher J. Tinto
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Technical & Regulatory Affairs
Safety

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APPENDIX

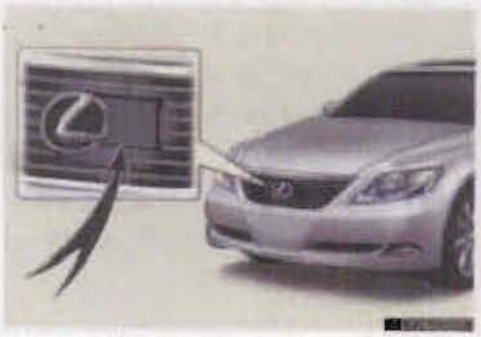
Table 1: Vehicular Radar Specifications

	Type A (Forward)	Type B (Rear)
Bandwidth	76.0-77.0 GHz	76.0-77.0 GHz
Frequency Modulation	450 MHz	300 MHz
Antenna Gain	25.0 dBi	21 .0 dBi
Peak EIRP	39.6 dBm	29.0 dBm

Table 2: Summary of E.I.R.P.

	<Current § 15.253>		<Toyota's Proposal>	
	Average (derived)	Peak (derived)	Average	Peak
Forward	<48.3 dBm	< 68.3 dBm	< 50 dBm	< 55 dBm
Side/Rear	<45.3 dBm	< 65.3 dBm		

Figure 1: Location of the Radar



1-1: Type A (Forward)

1-2: Type B (Rear)

Figure 2: Distance vs. Power Density

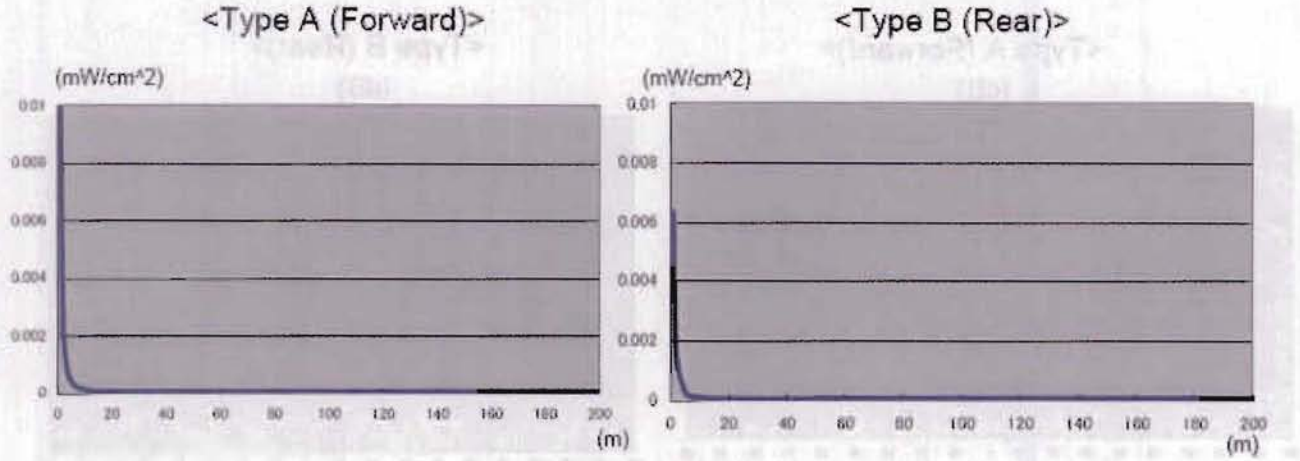


Figure 3: Distance vs. Power Density in Detail

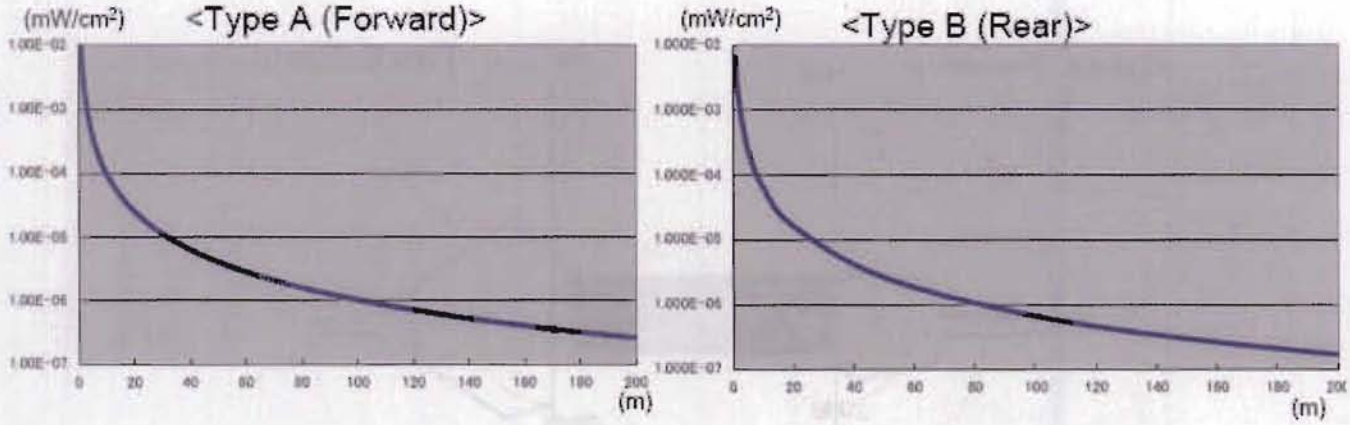


Figure 4: Approximate Envelope of Vertical Antenna Patterns

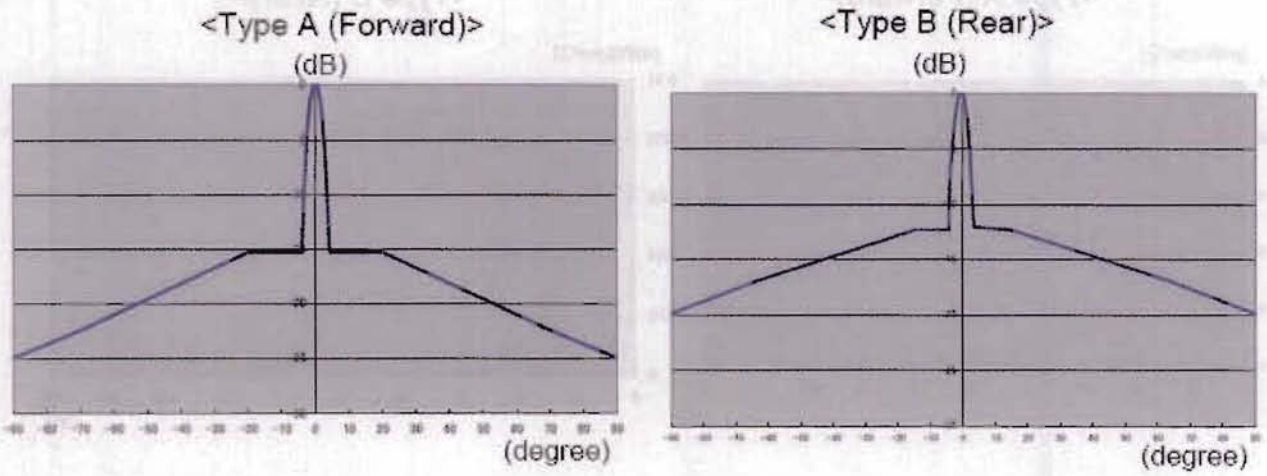


Figure 5: Approximate Vertical Directionality of Main and Side Lobes

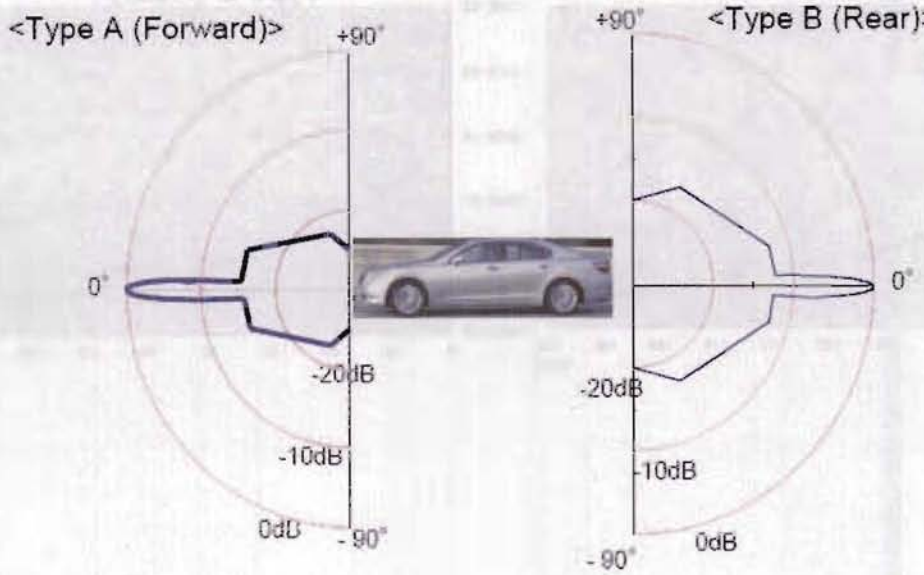


Figure 6: Approximate Envelope of Horizontal Antenna Patterns

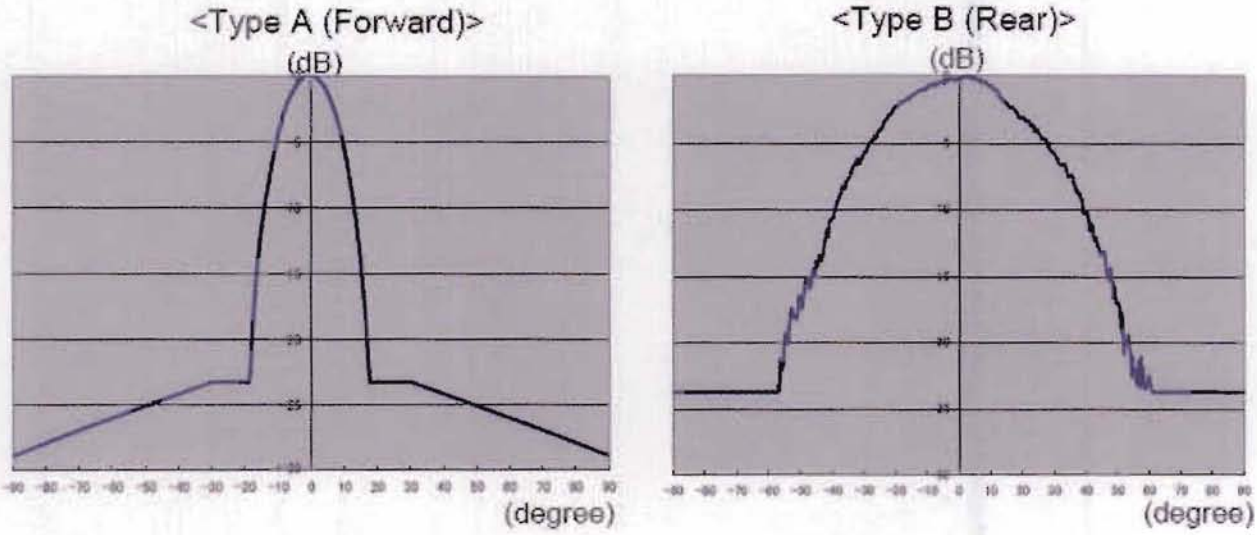


Figure 7: Approximate Horizontal Directionality of Main and Side Lobes